Big Data Enabling Tourism Competitiveness

8 March 2021

Final remarks

EUROSTAT

Outline of the presentation

Big data : **reality check**

Big data : some **lessons learnt**

Big data : some **results in the EU**

Big data : **role in the revision of the legal framework**

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Reality check

What we are used to

⇨**Preparing meals with one well-chosen ingredient. Meat or fish.**

⇨**Producing statistics based on surveys. Households or businesses.**

What we want

⇨ **A multi-coloured, multi-flavoured culinary feast**

⇨ **An integrated system of traditional and modern sources & methods**

Where to find it

⇨**In the ocean**

⇨**… an ocean of data … that tends to be a bit overcast**

How to find it

⇨ **Keep digging (« Digging since 2010 »)**

⇨ **… to discover that it's difficult to unveil / access what you found**

Lessons learnt

A decade of big data (attempts): lessons learnt

… or main obstacles encountered

⇨ **New game rules**

   ⇨ **No longer full control from A to Z:** NSIs become producer & customer

   ⇨ No longer 1 NSIs versus many many data suppliers, but 1 NSIs (or more?) versus a handful of strong oligopolistic players (often international)

   ⇨ New dimensions to **data protection** and **statistical disclosure control**

   ⇨ **Key to success = multi-disciplinary approach**
   (not only data people on both sides of the table, but also IT experts, lawyers, public policy teams, lawyers, investor relations teams, …)

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A decade of big data (attempts): lessons learnt

⇨ **Continuity**

⇨ **In the case of data access via the *back door*:**
« *Will you still scrape me tomorrow?* » (one off vs. longer term?)

⇨ **In the case of data access via the *front door*:**
obtain privately held data on the basis of agreements or legislation?

⇨ If there are only a few players: big impact of a drop-out (or even domino effect!)

A decade of big data (attempts): lessons learnt

⇨ **Impartiality**

    ⇨ **Data provider** can also be the **subject of the statistics** that will be produced

    ⇨ E.g. MNOs versus accommodation platforms

    ⇨ **Need for robust validation and other sources to compare with**

⇨ **Infrastructure & ressources**

    ⇨ **Data volumes can be huge (storage? processing?)** → less = more?

    ⇨ E.g. first batch of platforms data versus EDAMIS

    ⇨ **Work** on new developments, but also continue business-as-usual

A decade of big data (attempts): lessons learnt

⇨ **Quality**

⇨ **Existing quality frameworks can't be used**

⇨ But: there is **no such thing as « the ground truth »** - how we currently do things using 'traditional' sources and methods isn't perfect either

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Results (?)

A decade of big data (attempts): results ?
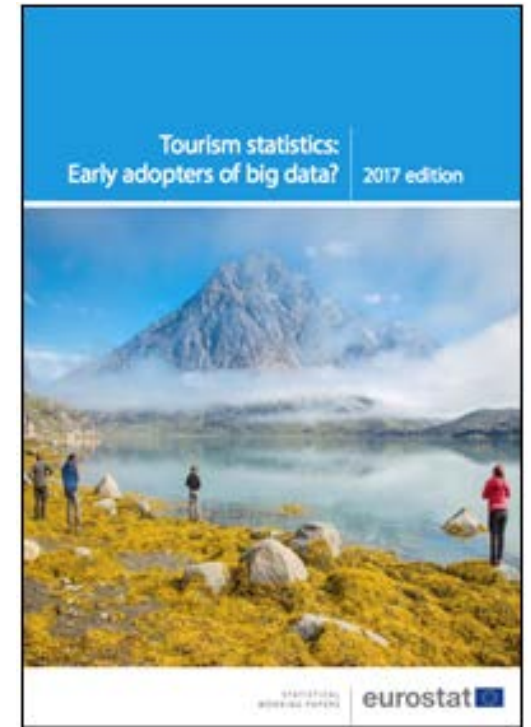
⇨ **Lots of experiments !** (in all countries)

⇨ Experiments show that the data makes sense (and maybe more sense than some traditional sources?)

⇨ **Often « one off » :**

⇨ Not (yet) leading to regular production,

⇨ Not (yet) sufficiently replicable or comparable

⇨ **Tourism statistics remains a very interesting playground for big data**

A decade of big data (attempts): results ?

⇨ **Some examples**

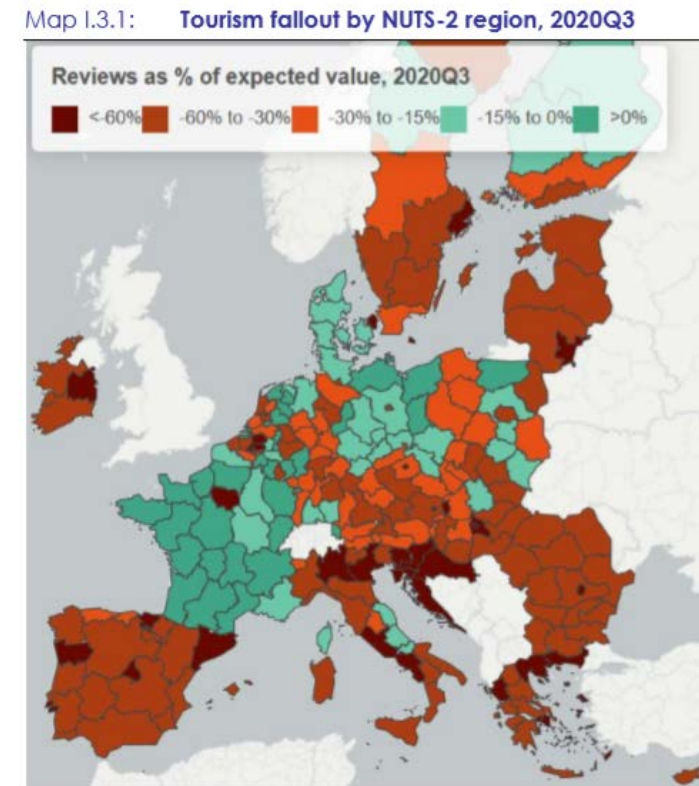 ⇨ ESSnet (cooperation between NSIs) work package on «innovative tourism statistics» (2018-2020)
  https://www.youtube.com/watch?v=XMm40HJyyzI

  ⇨ Joint Research Centre (JRC): «Territorial patterns of tourism intensity and seasonality in the EU»
  https://publications.jrc.ec.europa.eu/repository/handle/JRC117669

  ⇨ ECFIN «Tourism in pandemic times: an analysis using real-time big data»
  https://ec.europa.eu/info/sites/info/files/autumn_20_forecast.pdf
  (p70-)

Map I.3.1: Tourism fallout by NUTS-2 region, 2020Q3

Reviews as % of expected value, 2020Q3

< -60%   -60% to -30%   -30% to -15%   -15% to 0%   >0%

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Big data as a katalysor for revising the legal framework

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Big data in official tourism statistics ?

⇨ **Revision of Regulation (EU) 692/2011 concerning European statistics on tourism**

　　⇨ **Modernise** the legal framework: new user needs, but also potential **new sources & methods**

　　⇨ **Hybrid system** of traditional and smart surveys, administrative data, big data sources

　　　　⇨ **Dilemma**: innovative sources can only be embedded in a legal basis when feasible & ready; but might only be feasible & ready if given a 'legal push'.

　　⇨ **Task Force** in 2021 to prepare the blueprint (incl. TSA), and to prepare a draft revised legal basis in 2022 or 2023

Thank you